

The opinion in support of the decision being entered today
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TOM TANG, JOHN NANTZ,
RIAD GHABRA, THOMAS LEMENSE, and
JAN SUPRONOWICZ

Appeal 2007-3131
Application 10/716,121¹
Technology Center 2600

Decided: July 31, 2007

Before RICHARD E. SCHAFER, JAMESON LEE, and
RICHARD TORCZON, *Administrative Patent Judges*.

LEE, *Administrative Patent Judge*.

DECISION ON APPEAL

A. Statement of the Case

This is a decision on appeal by Applicants under 35 U.S.C. § 134(a) from a rejection of claims 1-20 in Application 10/716,121. We have jurisdiction under 35 U.S.C. § 6(b).

¹ Filed November 18, 2003. The real party in interest is Lear Corporation.

Reference Relied on by the Examiner

Kulka

US 6,087,930

July 11, 2000

The Rejections on Appeal

The Examiner rejected claims 1-20 under 35 U.S.C. § 102(b), as anticipated by Kulka.

B. Issue

Have the Applicants shown error in the rejection of claims 1-20?

C. Summary of the Decision

The Applicants have shown error in the rejection of each one of claims 1-20.

D Findings of Fact (Referenced as FF. ¶ No.)

1. The disclosed invention is directed to a “universal” monitor for use in a remote tire pressure monitoring system. (Specification 1:4-6).

2. The Applicants acknowledge that at the time of invention it was well known in the automotive industry to provide vehicles with remote tire pressure monitoring systems for monitoring tire pressure and other tire parameters. (Specification 1:8-10).

3. Typically, the prior art tire pressure monitors (TPM) transmit wireless radio frequency signals which include data representing the tire pressure. (Specification 1:12-13).

4. According to the Applicants, pre-existing TPM systems are different from one manufacturer to the next, and may even be different within an individual manufacturer’s platform, and

consequently, tire monitors must be specially configured for use in a particular TPM.

5. According to the Applicants, in prior art systems, a tire monitor configured for use in a particular TPM system has a manufacturer's code which may indicate a particular combination of various characteristics, such as a carrier frequency, modulation scheme, data format, and/or encryption technique to be used for wireless signals in that particular TPM system. (Specification 1:22-26).

6. Thus, according to the Applicants, a need existed for a "universal" tire monitor which can be used with multiple TPM systems, and such a "universal" tire monitor would reduce the need for installers and aftermarket providers to stock multiple tire monitors configured to different TPM systems. (Specification 2:1-5).

7 The Applicants disclose a first embodiment in which a tire monitor includes a controller which stores a plurality of manufacturer codes each identifying a signal format, and a radio frequency program signal is received by the monitor to select the manufacturer code according to which the wireless tire monitoring signal will be sent by the monitor. (Specification 6:24 to 7:20).

8. The Applicants disclose a second embodiment in which the controller, rather than storing a plurality of manufacturer codes, stores only a particular manufacturer code that is communicated to the monitor by a program signal, and during tire monitoring operations the monitor will send

the wireless tire monitor signal according to the signal format indicated by the particular stored manufacturer code. (Specification 7:28 to 8:10).

9. In either the first or the second embodiment, the monitor is deemed “universal” by the Applicants, because the monitor is not configured specially to operate only according to the format requirements of a single TPM system but is capable of operating according to any of a number of signal formats specified by a program signal. (Specification 8:11-15).

10. In the Summary of the Invention portion of the specification, the Applicants describes, evidently in connection with the first disclosed embodiment, that the monitor comprises “a storage device for storing a plurality of codes, each code comprising at least a data format.” (Specification 2:15-16).

11. In a third embodiment, the Applicants disclose that the controller of the tire monitor stores a plurality of manufacturer codes each identifying a signal format required by a particular TPM system, and that the tire monitor sends out a series of wireless signals each one according to a different one of the plurality of stored manufacturer codes. (Specification 9:14-18).

12. In the third embodiment, every type of TPM system will be covered so long as the corresponding manufacturer codes has been stored. (Specification 9:18-19).

13. In the Summary of the Invention portion of the specification, the Applicants describes, evidently in connection with the third disclosed embodiment, that the monitor comprises “a storage device for storing a

plurality of codes, each code comprising at least a data format.”
(Specification 3:4-5).

E. Principles of law

To establish anticipation under 35 U.S.C. § 102, each and every element in a claim, arranged as is recited in the claim, must be found in a single prior art reference. *Karsten Manufacturing Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383, 58 USPQ2d 1286, 1291 (Fed. Cir. 2001). Anticipation can be found when a claim limitation is inherent or otherwise implicit in the reference. *Standard Havens Products, Inc. v. Gencor Industries, Inc.*, 953 F.2d 1360, 1369, 21 USPQ2d 1321, 1328 (Fed. Cir. 1991). That which is missing in the express description must necessarily be present. *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991).

In proceedings before the U.S. Patent and Trademark Office, claim terms are properly construed according to their broadest reasonable interpretation consistent with the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1990).

F. Analysis

Claims 1-20 include three independent claims: claims 1, 11, and 19, which are reproduced below.

1. A universal monitor to be mounted in a tire of a vehicle, the monitor for use in a remote tire pressure monitoring system for the vehicle, the monitor comprising:

a sensor for sensing tire pressure;

a storage device for storing a plurality of codes, each code comprising at least a data format; and

a transmitter for communication with the sensor and the storage device, the transmitter for transmitting a wireless signal including data representing the sensed tire pressure, wherein the wireless signal is transmitted by the transmitter according to at least one of the stored plurality of codes.

11. A universal monitor to be mounted in a tire of a vehicle, the monitor for use in a remote tire pressure monitoring system for the vehicle, the monitor comprising:

a sensor for sensing tire pressure;

a receiver for receiving a program signal, the program signal comprising one of a plurality of codes, each code comprising at least a data format; and

a transmitter in communication with the sensor and for transmitting a wireless signal including data representing the sensed tire pressure, wherein the wireless signal is transmitted according to the one of the plurality of codes received by the receiver.

19. A universal monitor to be mounted in a tire of a vehicle, the monitor for use in a remote tire pressure monitoring system for the vehicle, the monitor comprising:

a sensor for sensing tire pressure;

a storage device for storing a plurality of codes, each code comprising at least a data format; and

a transmitter in communication with the sensor and the storage device, the transmitter for transmitting a series of wireless signals including data representing the sensed tire pressure, wherein each of the series of wireless signals is

transmitted according to a different one of the stored plurality of codes.

Each of claims 1-20 recites something different from one another, particularly independent claims 1, 11, and 19. The Examiner, however, adopts a general and scattered approach that does not address all the features of any one claim specifically. The entirety of the Examiner's analysis for claims 1-20, within the stated ground of rejection, is reproduced below (Answer 3:5-16):

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kulka et al (6,087,930).

-- in considering claims 1-10, the claimed subject matter that is met by Kulka et al (Kulka) includes:

1) the transponder (10), RFID(18), central processing unit (20), including memory (22), including tire ID code (see: col. 5, ll. 20-31), low frequency receiver(34), external interface inputs (26,28), low frequency receiver;

2) the program signal having a low frequency is met (see: col. 8, ll. 26-41);

3) the remote transmitter including low frequency transmitter is met by the interrogator (80, col. 8, ll. 25-41);

4) the signal transmitted according to each of the stored plurality of codes and the receiver recognizing the codes is met by the interrogator transmitting based on a tag ID value (see: col. 8, ll. 42 et seq).

-- Claims 11-20 recite subject matter that is met as discussed in claims 1-10 above.

The above-quoted analysis is incomprehensible, with regard to identifying how each feature of any one rejected claim is deemed to have been met by Kulka. Neither independent claim 1 nor 19 requires a program signal of any kind, and independent claim 11 does not require a program signal having a low frequency. None of independent claims 1, 11, and 19 requires a “remote” transmitter, or a transmitter of any kind that includes a low frequency transmitter. The Examiner, also, nowhere identifies what in Kulka constitutes the stored plurality of codes, each code comprising at least a data format, which is required by independent claims 1 and 19. With regard to independent claim 11, the Examiner nowhere identifies what in Kulka constitutes the plurality of codes, each code comprising at least a data format, one of which is included in or comprised by the program signal. We note that Kulka in col. 8, ll. 26-41, discusses nothing about a plurality of codes, each comprising at least a data format. Also, the Tag ID value discussed in col. 8, ll. 42-65, of Kulka is an identification code which specifies a particular transponder for communication with interrogator 80; it is not a code that specifies a format for transmission of sensed tire pressure.

The Examiner’s analysis is lacking and inadequate for establishing a prima facie case of anticipation. The Applicants argue, persuasively, that the Examiner failed to point out in Kulka the plurality of stored codes, each code comprising at least a data format, that is required by independent claims 1 and 19. Claim 1 further requires that the transmission of a wireless signal including data representing sensed tire pressure be in accordance to the at least one of the stored plurality of codes; that has not been accounted for by the

Examiner. Claim 19 further requires that the series of wireless signals including data representing the sensed tire pressure be transmitted in accordance with respectively different ones of the stored plurality of codes; that has not been accounted for by the Examiner.

The Applicants argue, persuasively, that the Examiner failed to point out in Kulka, a plurality of codes, each code comprising at least a data format, one of which being comprised by the program signal, as is required by claim 11. Claim 11 further requires that the transmission of a wireless signal including data representing the sensed tire pressure be in accordance with the one of the plurality of codes; that has not been accounted for by the Examiner.

In response to the Applicants' argument that the claimed "codes" of each independent claim must each comprise at least a data format, which format according to the specification may be used to identify a signal format including any number of characteristics, such as carrier frequency, modulation scheme, data format, and/or encryption technique, the Examiner simply states that nowhere in the claims are the definition of the terms "code" and "format" recited. (Answer 5:5-6).

The Applicants have merely pointed to that part of the specification which gives examples of factors which figure into the establishment of different signal formats for wireless data transmission. The Applicants have not argued that any one claim requires a particular signal format of wireless transmission. Indeed, the claims do not require any particular format of data transmission.

The Examiner's response regarding the Applicants' reliance on an unclaimed definition of "code" or "format" is misplaced.

The Examiner is entitled to read "code" and "data format" broadly, according to the broadest reasonable interpretation consistent with the specification. *In re Zletz*, 893 F.2d at 321, 13 USPQ2d at 1322. So long as a code, satisfied by some data or information, specifies or indicates a format for wireless transmission of data that includes the sensed tire pressure, that would satisfy the "code" and "data format" aspects of the claims. However, the Examiner has gone beyond the limit of reasonableness, effectively reading out of the claims any meaningful significance of the requirement of a plurality of codes, each code comprising at least a data format. The Examiner evidently reads the claims as only requiring transmission of data according to any format. (Answer 5:10-18). That reading is excessively broad, and unreasonable.

It is not in dispute that Kulka does not disclose any choice of data format for transmission of data including the sensed tire pressure. On page 5 of the Answer, the Examiner states:

Use of stored codes and transmission of data according "to a format" is clearly taught by Kulka in a manner which reads on the limitations of the claimed subject matter. In col. 10 ll. 29-33, Kulka clearly states that signals transmitted from the RFID(18) to the remote interrogation source(30) are transmitted in serial format. As well, Kulka states that parameters output from memory(22) are transmitted serially after preamble signal bits, which implies that parameter data is coded data that is serially transmitted to the remote interrogation source.

It is unexplained on what rationale the Examiner regards the claim feature of a plurality of codes, each code comprising at least a data format, as being satisfied simply by any data being transmitted according to a fixed format. In the absence of any explanation given by the Examiner, we conclude that the stated view of the Examiner is unreasonable.

The specification discloses three embodiments, all of which refer to a plurality of codes each specifying or indicating one of many possible data formats according to which data including the sensed tire pressure may be sent by wireless transmission. Although the Applicants could have recited in the claims a plurality of codes, each code “specifying” or “indicating” a data format, it is evident that the Applicants use the language “comprising at least a data format” to refer to the same. In the Summary portion of the specification, the Applicants refer to: “a plurality of codes, each code comprising at least a data format.” Such choice of language is not an unreasonable one. Format is an appearance that data possesses. Data cannot reasonably “include” or “comprise” a format unless those terms refer to the substantive content or significance of the data. Here, a code’s comprising a data format can reasonably mean only that the meaning of the data specifies or indicates a particular format. It does not mean, as the Examiner concludes, simply that the data has a given format.

For the foregoing reasons, the rejection of claims 1-20 as anticipated by Kulka cannot be sustained.

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CONCLUSION

The rejection of claims 1-20 under 35 U.S.C. § 102 as anticipated by Kulka is **reversed**.

REVERSED

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